How To Mulch Trees In The Urban Environment

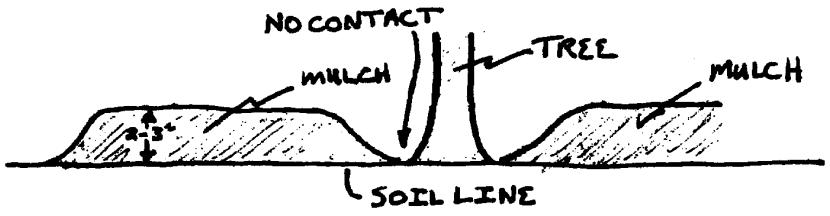
City of Takoma Park Urban Forest Division "How To" Fact Sheet

Why?

Most tree species planted in cities originated in ***forests*** where soils are rich, fertile and contain surface layers covered with decomposed leaves and other organic matter. Competition for frees in the forest typically does not come from turf grass, but from other woody plants and non-aggressive herbaceous plants. In contrast, when these same tree species are planted in the urban environment, they are usually planted in compacted, disturbed soils with aggressive turf competition over the entire root zone. Urban planted trees also have to contend with the increase in temperature and impervious space that urban development causes. With the competition of turf grass, lack of naturally generated organic matter, and presence of impervious spaces, the development of less vigorous and become more sensitive to environmental stresses such as drought, pest attacks and nutrient deficiencies. One way to lessen the negative impacts that the urban environment imposes upon trees is to "mulch" as much of the root zone as possible.

How?

- Decide how big of a mulch ring to make. A tree can benefit from a mulch ring just a few feet wide, but would prefer if tle mulch ring went all the way to the drip line. Your decision will probably be based on cost, use of the yard, and aesthetics of how much mulch you can tolerate in your yard.
- Remove all undesirable plants in area to be mulched. This can be done by manually removing the undesirable plants (and roots), but care needs to be taken not to remove a lot of tree roots as well. Do not dig down more than a few inches (2) in the soil. Or, herbicides can be used. Do not use systemic herbicides, they will poison the tree you are frying to help. Use contact herbicides and be careful to only apply it to the plants that you want removed. Once the undesirable plants are dead, mow as close as possible to ground level.
- Apply the mulch around the free at a depth of 2-3 inches, being careful not to come in contact with the trunk of the tree. Taper the mulch as it approaches the trunk so the mulch will not fall against the free.
- Once the mulch is applied, water the mulch to help settle it in.



Maintenance

- Check occasionally to make sure that the mulch is not in contact with the trunk.
- Rake the mulch to break up any matted layers and to refresh appearance.
- Check the depth. If the mulch is below 2" deep, apply a light layer. Be careful not to apply too much.
- Remove weeds to keep appearance of mulch looking good.
- Water mulch (and tree) to keep water available and to encourage decomposition of the mulch into organic matter in the soil.

Common Mistakes

- Applying mulch too deep. Excessive amounts of mulch can decrease soil moisture content and soil aeration.
- Applying too little mulch. Insufficient amounts will not satisfy the principal objectives.
- Piling the mulch to close or on the free trunk (commonly called "volcano mulching"). This can restrict the exchange of carbon dioxide and oxygen between the living bark and the atmosphere, thus suffocating the bark and inhibiting the flow of water and nutrients up and down the free.
- Using landscape fabrics. Landscape fabrics installed between the soil and mulch negate the benefit of decomposing mulch and tend to inhibit water flow after a few years.

Effects Of Proper Mulchin2

- Moderate soil temperature so the roots are cooler in summer and warmer in winter
- Reduce soil moisture loss; i.e. helps soil hold moisture to reduce drought effects
- Reduce soil compaction, which restricts root growth
- Provides nutrients
- Improves soil structure
- Keeps mowers and trimmers away from the trunks of trees
- Reduce runoff and erosion
- Keeps weeds down